REMARKS

Filed concurrently herewith is a Request for a Three-Month Extension of Time which extends the shortened statutory period for response to August 18, 2004. Accordingly, Applicants respect submit that this response is being timely filed.

The Official Action dated February 18, 2004 has been received and its contents carefully noted. In view thereof, claim 2 has been canceled without prejudice nor disclaimer of the subject matter set forth therein and claims 1 and 3-9 have been amended in order to better define that which Applicant regards as the invention. Accordingly, claims 1 and 3-9 are presently pending in the instant application.

Referring now to the Official Action and particularly page 2 thereof, claims 1-9 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,455,879 issued to Modavis et al. This rejection is respectfully traversed in that the patent to Modavis et al. neither discloses nor remotely suggests that which is presently set forth by Applicants' claimed invention.

Initially, as can be seen from the foregoing amendments, previous claim 2 has been canceled with the subject matter thereof being added to previous independent claim 1 while previous claim 3 has been amended to include all the subject matter of previous independent claim 1. Accordingly, independent claims 1, 3 and 9 are presently pending in the instant application with claims 4 being dependent upon independent claims 1 and 3 and dependent claims 5-8 being dependent upon independent claim 3. With the foregoing amendments, it is respectfully submitted that Applicants' claimed invention clearly distinguishes over the teachings of Modavis et al. and are in proper condition for allowance.

That is, independent claim 1 recites an optical fiber microlens that has a core and a cladding end at the tip and an anamorphic means of conversion, in which at the optical fiber

tip that faces the light source or radiated beam a first pair of incline surfaces are formed in a positional relationship such that they intersect in a wedge shape, on the axis of a plane perpendicular to the axis of the optical fiber along the center of the core are formed second inclined surfaces and at an angle to a plane perpendicular to the central axis of the optical fiber and lengthwise to the wedge shaped tip and wherein the tip of the optical fiber microlens is process as a curved surface, in which the curved surface is a portion of an elliptical surface, and one major axis of the elliptical surface matches the central axis of the core. Clearly, the Modavis et al. reference fails to disclose or suggest such features. Similarly, independent claim 3 recites an optical fiber microlens similar to that of independent claim 1 with the tip of the optical fiber microlens being processed as a curved surface in which the inner section of the curved surface with each of two perpendicular planes that contain the central axis of the core is an arc each with a specified radius. Again, the patent to Modavis et al. neither discloses nor remotely suggests that which is presently set forth in independent claim 3.

As the Examiner can readily appreciate, Modavis et al. fails to disclose the radius of the lens fiber in the specification thereof and it is obvious that the surface of the fiber edge are two pairs of slopes which are formed at two different angels and symmetric with respect to a line and the angle of the slopes and the core side is less than that of the other slopes. As noted hereinabove, Applicants' claimed invention relates to forming curvature surfaces having different radiuses of curvature which intersect at right angles to one another. The anamorphic lens design illustrated in Figs. 8 and 9 of Modavis et al. is significantly different from that of the present invention. Therein, Modavis et al. discloses that the core of the fiber is formed in an ellipse, tapered edge and consists of two planes, and the tapered wedge is crossed at the center of the core forming one ridge line. Furthermore, Modavis et al. goes on

to disclose that the factor having a high coupling is the shape of the ellipsed core and the ridge line is aligned to the major axis of the ellipsed core. Accordingly, it is respectfully submitted that each of independent claims 1 and 3 as well as those claims which depend therefrom clearly distinguish over the teachings of Modavis et al.

With respect to independent claim 9, this claim recites a method of positioning an optical fiber microlens such that when the light beam that enters from a given light source forms an elliptical flat shape on the plane that is in contact with the tip of the optical fiber microlens, the optical fiber is positioned by rotating the axis so that the central axis of the core matches the direction of travel of the center line of the light beam and a line tangent to the largest curvature in the core tip is perpendicular to the long direction of the elliptical flat shape. As the Examiner can appreciate from Fig. 10 of the Modavis et al. reference, this reference discloses that the mode field shape is modified from ellipse to a circle in the ellipse fiber core to use a coupling, and introduces a standard circle fiber core by special melting splice. Clearly, the Modavis et al. reference neither discloses nor remotely suggests that which is presently set forth in the method set forth in independent claim 9.

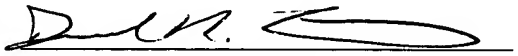
It is noted that the beam emitted from the laser diode is transmitted to the end surface of the fiber and it makes a significant difference as to whether or not the end surface of the fiber is flat or curved. It is known that the beam is transferred through a tilt angled border plane, refracted in subsequently condensed again, and an aberration is carried out on the condensed beam. If the diameter of the core is large and is focused in a numerical aperture (NA), the difference of coupling tilt angle is not carried out. However, if the diameter of the core is small such as two to three microns condensing with high coupling is not theatrically expected without a radius of curvature. That is, with previous devices it is in the range of the NA of the fiber effect carried out is substantially equal to the radius of curvature exists

however, under extreme conditions, the effect of the present invention will be achieved. Consequently, it is respectfully submitted that Applicants' claimed invention as set forth in independent claims 1, 3 and 9 as well as those claims which depend therefrom clearly distinguish over the teachings of Modavis et al. and are proper condition for allowance.

Therefore, in view of the foregoing it is respectfully requested that the rejection of record be reconsidered and withdrawn by the Examiner, that claims 1 and 3-9 be allowed and that the application be passed to issue.

Should the Examiner believe a conference would be of benefit in expediting the prosecution of the instant application, he is hereby invited to telephone counsel to arrange such a conference.

Respectfully submitted,



Donald R. Studebaker
Reg. No. 32,815

Nixon Peabody LLP
401 9th Street N.W.
Suite 900
Washington, D. C. 20004
(202) 585-8000